



# Water Quality NewsFlash

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**Drain Inlet Filters – Study proposes optimized placement** – A recent study from UC Irvine suggests that drain inlet (curb) filters can be used effectively to meet stringent TMDL requirements. The study tested 10 different filters and found that they varied greatly; some were completely ineffective while others were over 90% effective, depending on filter materials and pollutant types (metals, pathogens, and total suspended sediments). However, the best removal for fecal coliform was less than 50% effective and no filter removed more than 55% of the copper. Furthermore, the paper proposes that inlet filter placement should take into account land use patterns and associated pollutants categories. Using a model of Newport Bay and its tributary San Diego Creek, the study found that targeted placement of filters was at least 5 times more effective than random placement of filters. Drain inlet filters generally require a high level of ongoing maintenance and replacement and may not be suitable for highways. Abstract (full paper requires purchase): <http://pubs.acs.org/cgi-bin/abstract.cgi/esthag/2006/40/115/abs/es060520f.html>. Also [http://pubs.acs.org/subscribe/journals/esthag/supinfo/es060520f/es060520fsi20060516\\_023935.pdf](http://pubs.acs.org/subscribe/journals/esthag/supinfo/es060520f/es060520fsi20060516_023935.pdf) for supporting information. The Caltrans *Treatment BMP Technology Report* includes Fact Sheets and BMP pilot reports on a wide spectrum of drain inlet inserts: [http://www.dot.ca.gov/hq/env/stormwater/annual\\_report/2006/Attachments/CTSW-RT-06-167.02.02.pdf](http://www.dot.ca.gov/hq/env/stormwater/annual_report/2006/Attachments/CTSW-RT-06-167.02.02.pdf).

**San Diego Lagoons – Board requests monitoring program** – The San Diego Water Board has sent an Investigation Order to Caltrans and other operators of municipal separate storm sewer systems (MS4) that discharge runoff to “Impaired Lagoons, Adjacent Beaches, and Agua Hedionda Creek” in the San Diego area. The order requires a workplan and very extensive monitoring to support the Board’s upcoming development of TMDLs for the eleven separate waterbodies: <http://www.waterboards.ca.gov/sandiego/tmdls/lagoons%20agua%20hedionda%20creek.html>

**Bacteria on Beaches – Study estimates health and economic impacts** – A recent study by researchers from UCLA and Stanford estimates that between 0.6 and 1.5 million Southern California’s beachgoers get sick due to bacterial pollution every year. The study also estimates that this results in health care costs ranging from \$21 million to \$414 million annually. The researchers used dose-response models based on beach attendance and measured bacteria levels and extrapolated the health effects rather than using reported incidences of disease. The study report recommended that control measures focus on dry weather runoff: “Health costs are greater in the dry season compared to the wet suggesting that money may be well spent on dry-weather diversions.” However, it also noted that the source of pollution during the dry season is largely unknown. <http://pubs.acs.org/cgi-bin/sample.cgi/esthag/asap/html/es060679s.html>

In related news, the U.S. EPA has published a series of papers summarizing the research conducted on waterborne diseases in the last 10 years and which focus on gastrointestinal illness (GI) as the health effect of concern. The Centers for Disease Control and Prevention estimates an average occurrence rate of 0.65 episodes of acute GI per person per year. According to the papers, drinking water probably causes less than 10% of the cases; other causes include food, person-to-person contact, and recreational water contact.

[http://www.epa.gov/nheerl/articles/2006/waterborne\\_disease.html](http://www.epa.gov/nheerl/articles/2006/waterborne_disease.html).

WQ NewsFlash is a weekly update of storm water and related news for the Department. *Verify information before taking action on these bulletins.* Contact Betty Sanchez, [Betty\\_Sanchez@dot.ca.gov](mailto:Betty_Sanchez@dot.ca.gov) (916) 653-2115, or Fred Krieger, (510) 843-7889, [fkrieger@msn.com](mailto:fkrieger@msn.com) with questions or to be added or deleted from e-mail list. Posted online at: <http://www.dot.ca.gov/hq/env/stormwater/publicat/newsflash/index.htm>